

1. In a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, a method for at least one of the mobile computing devices installing the set of computer-executable instructions as a transaction using rollback features of a configuration manager residing on the mobile computing device, the method comprising the following:

an act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device;

an act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

an act of the configuration manager causing the installation instructions to be executed; and

an act of the configuration manager causing a rollback document to be constructed.

2. A method in accordance with Claim 1, further comprising the following:

an act of the mobile computer device determining whether or not the installation instructions would be successful.

3. A method in accordance with Claim 2, wherein the act of the mobile computer device determining whether or not the installation instructions would be successful comprises the following:

an act of querying a plurality of configuration service providers that would each perform some of the installation instructions as to whether or not the installation would be successful with respect to their corresponding installation instructions.

4. A method in accordance with Claim 3, further comprising the following:

an act of determining, based on the result of the query, that installation would be successful; and

an act of committing a transaction involving the execution of the installation instructions as a whole.

5. A method in accordance with Claim 2, wherein the act of the mobile computer device determining whether or not the installation instructions would be successful comprises the following:

an act of determining that the installation instructions have been successfully executed.

6. A method in accordance with Claim 2, wherein the act of the mobile computer device determining whether or not the installation instructions would be successful comprises the following:

an act of determining that the installation instructions have failed to be executed as a whole; and

an act of reversing the installation process by executing the rollback document.

7. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing a compressed version of the at least one file that is to be installed on the mobile computing device; and

an act of the mobile computing device decompressing the compressed version of the at least one file that is to be installed on the mobile computing device.

8. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing an uncompressed version of the at least one file that is to be installed on the mobile computing device.

9. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing installation instructions that are structured in accordance with a schema that is interpretable by the configuration manager.

10. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing installation instructions that are structured in accordance with eXtensible Markup Language (XML).

11. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to extract a compressed version of a file.

12. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to move a file from a source directory location to a destination directory location.

13. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to copy a file from a source directory location to a destination directory location.

14. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to delete a file.

15. A method in accordance with Claim 1, wherein the act of the mobile computing device accessing installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to alter a configuration setting.

16. A method in accordance with Claim 1, wherein the act of the configuration manager causing the installation instructions to be executed comprises the following:

an act of the configuration manager directly executing the installation instructions.

17. A method in accordance with Claim 1, wherein the act of the configuration manager causing the installation instructions to be executed comprises the following:

an act of the configuration manager causing at least one other module to execute the installation instructions.

18. A method in accordance with Claim 17, wherein the act of the configuration manager causing the at least one other module to execute the installation instructions comprises the following:

an act of the configuration manager passing file commands to a file configuration service provider.

19. A method in accordance with Claim 17, wherein the act of the configuration manager causing the at least one other module to execute the installation instructions comprises the following:

an act of the configuration manager passing configuration commands to a registry configuration service provider.

20. A method in accordance with Claim 1, wherein the act of the configuration manager causing a rollback document to be constructed comprises the following:

an act of the configuration manager including a pre-installation state in the rollback document.

21. A method in accordance with Claim 20, wherein the act of the configuration manager including a pre-installation state in the rollback document comprises the following:

for each installation instruction to alter a file, an act of backing up the original version of the file.

22. A method in accordance with Claim 1, wherein the act of the configuration manager including a pre-installation state in the rollback document comprises the following:

for each installation instruction to alter a configuration setting from an original value to an altered value, an act of backing up the original value of the configuration setting.

23. A computer program product for use in a network environment that includes a source of set of computer-executable instructions, and a plurality of mobile computing devices, the computer program product for implementing a method for at least one of the mobile computing devices installing the set of computer-executable instructions as a transaction using rollback features of a configuration manager residing on the mobile computing device, the computer program product comprising at least one computer-readable media having stored thereon the following:

computer-executable instructions for accessing at least a version of at least one file that is to be installed on the mobile computing device;

computer-executable instructions for accessing installation computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

computer-executable instructions for causing the installation instructions to be executed;

computer-executable instructions for causing a rollback document to be constructed; and

computer-executable instructions for determining whether or not the installation instructions would be successful.

24. A computer program product in accordance with Claim 23, wherein the at least one computer-readable media are physical storage media.

25. A computer program product in accordance with Claim 23, wherein the computer-executable instructions for causing a rollback document to be constructed comprise the following:

computer-executable instructions for including computer-executable instructions in the rollback document that are also directly interpretable by the configuration manager.

26. A computer program product in accordance with Claim 23, wherein the computer-executable instructions for determining whether or not the installation instructions would be successful comprise the following:

computer-executable instructions for determining that the installation instructions have been successfully executed as a whole.

27. A computer program product in accordance with Claim 23, wherein the computer-executable instructions for determining whether or not the installation instructions would be successful comprise the following:

computer-executable instructions for determining that the installation instructions have failed to be executed as a whole; and

computer-executable instructions for reversing the installation process by executing the rollback document.



28. In a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, a method for at least one of the mobile computing devices installing the set of computer-executable instructions as a transaction using rollback features of a configuration manager residing on the mobile computing device, the method comprising the following:

an act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device; and

a step for installing the at least one file in a transacted manner using the configuration manager.

29. A method in accordance with Claim 28, wherein the step for installing the at least one file in a transacted manner using the configuration manager comprises the following:

an act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

an act of the configuration manager causing the installation instructions to be executed;

an act of the configuration manager causing a rollback document to be constructed;  
and

an act of the mobile computer device determining whether or not the computer-executable instructions have been successfully executed as a whole.

30. In a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, a method for at least one of the mobile computing devices installing the set of computer-executable instructions using the security features of a configuration manager residing on the mobile computing device, the method comprising the following:

an act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device;

an act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

an act of the configuration manager causing the computer-executable instructions to be executed; and

for at least one of the computer-executable instructions, an act of the configuration manager determining whether or not the execution of the computer-executable instructions is authorized.

31. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing a compressed version of the at least one file that is to be installed on the mobile computing device; and

an act of the mobile computing device decompressing the compressed version of the at least one file that is to be installed on the mobile computing device.

32. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing an uncompressed version of the at least one file that is to be installed on the mobile computing device.

33. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing installation instructions that are structured in accordance with a schema that is interpretable by the configuration manager.

34. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing installation instructions that are structured in accordance with an eXtensible Markup Language (XML) specification.

35. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how

the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to extract a compressed version of a file.

36. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to move a file from a source directory location to a destination directory location.

37. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to copy a file from a source directory location to a destination directory location.

38. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to delete a file.

39. A method in accordance with Claim 30, wherein the act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device comprises the following:

an act of the mobile computing device accessing at least one installation instruction to alter a configuration setting.

40. A method in accordance with Claim 30, wherein the act of the configuration manager causing the installation instructions to be executed comprises the following:

an act of the configuration manager directly executing the installation instructions.

41. A method in accordance with Claim 30, wherein the act of the configuration manager causing the installation instructions to be executed comprises the following:

an act of the configuration manager causing at least one other module to execute the installation instructions.

42. A method in accordance with Claim 41, wherein the act of the configuration manager causing the at least one other module to execute the installation instructions comprises the following:

an act of the configuration manager passing file commands to a file configuration service provider.

43. A method in accordance with Claim 41, wherein the act of the configuration manager causing the at least one other module to execute the installation instructions comprises the following:

an act of the configuration manager passing configuration commands to a registry configuration service provider.

44. A method in accordance with Claim 30, wherein the act of the configuration manager determining whether or not the execution of the installation instructions is authorized comprises the following:

an act of the configuration manager accessing a role mask corresponding to the set of computer-executable instructions; and

an act of determining whether or not the execution of the installation instructions is authorized using the role mask.

45. A method in accordance with Claim 30, wherein the act of the configuration manager determining whether or not the execution of the installation instructions is authorized comprises the following:

an act of the configuration manager determining that at least one of the installation instructions is unauthorized.

46. A method in accordance with Claim 45, further comprising the following:

an act of halting or abstaining from the act of the configuration manager causing the installation instructions to be executed after the act of the configuration manager determining that at least one of the computer-executable instructions is unauthorized.

WORKMAN, NYDEGGER & SEELEY

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

1000 EAGLE GATE TOWER

60 EAST SOUTH TEMPLE

SALT LAKE CITY, UTAH 84111

47. A computer program product for use in a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, the computer program product for implementing a method for at least one of the mobile computing devices installing the set of computer-executable instructions using the security features of a configuration manager residing on the mobile computing device, the computer program product comprising at least one computer-readable media having stored thereon the following:

computer-executable instructions for accessing at least a version of at least one file that is to be installed on the mobile computing device;

computer-executable instructions for accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

computer-executable instructions for causing the installation instructions to be executed; and

computer-executable instructions for determining whether or not the execution of the installation instructions is authorized for at least one of the installation instructions.

48. A computer program product in accordance with Claim 47, wherein the at least one computer-readable media are physical storage media.

49. A computer program product in accordance with Claim 47, wherein computer-executable instructions for determining whether or not the execution of the installation instructions is authorized comprise the following:



computer-executable instructions for accessing a role mask corresponding to the set of computer-executable instructions; and

computer-executable instructions for determining whether or not the execution of the instructions is authorized using the role mask.

50. A computer-program product in accordance with Claim 47, wherein the computer-executable instructions for determining whether or not the execution of the installation computer-executable instructions is authorized comprise the following:

computer-executable instructions for determining that at least one of the computer-executable instructions is unauthorized.

51. A computer program product in accordance with Claim 50, where the at least one computer-readable media further have stored thereon the following:

computer-executable instructions for halting the act of the configuration manager causing the computer-executable instructions to be executed after the act of the configuration manager determining that at least one of the computer-executable instructions is unauthorized.

52. In a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, a method for at least one of the mobile computing devices installing the set of computer-executable instructions using the security features of a configuration manager residing on the mobile computing device, the method comprising the following:

an act of the mobile computing device accessing at least a version of at least one file that is to be installed on the mobile computing device; and

a step for conditionally installing the at least one file using security features of a configuration manager.

53. A method in accordance with Claim 52, wherein the step for conditionally installing the at least one file using security features of a configuration manager comprises the following:

an act of the mobile computing device accessing computer-executable installation instructions that define how the at least one file is to be installed on the mobile computing device, the installation instructions being directly interpretable by a configuration manager associated with the mobile computing device;

an act of the configuration manager causing the installation instructions to be executed; and

for at least one of the installation instructions, an act of the configuration manager determining whether or not the execution of the installation instructions is authorized.

54. At least one computer-readable media for use in a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, the at least one computer-readable media have stored thereon a data structure for implementing a method for at least one of the mobile computing devices installing the set of computer-executable instructions using a configuration manager residing on the mobile computing device, the data structure comprising the following:

a field representing at least a version of at least one file to be installed; and

installation instructions for dictating how to install the at least one file on the mobile computing device, the installation instructions structured to be directly interpretable by the configuration manager.

55. An at least one computer-readable media in accordance with Claim 54, wherein the field comprises a compressed version of the at least one file to be installed.

56. An at least one computer-readable media in accordance with Claim 54, wherein the installation instructions are structured in accordance with an eXtensible Markup Language specification.

57. An at least one computer-readable media in accordance with Claim 54, wherein the at least one computer-readable media are physical storage media.

58. A system for use in a network environment that includes a source of a set of computer-executable instructions, and a plurality of mobile computing devices, the system for installing the set of computer-executable instructions on a mobile computing device using the security features of a configuration manager residing on the mobile computing device, the system comprising the following:

an installation module configured to parse the set of computer-executable instructions into one or more files to be installed and into installation instructions;

a configuration manager configured to receive the installation instructions from the installation module;

a file configuration service provider configured to receive any of the installation instructions that represent file or directory operations from the configuration manager, and configured to execute the received installation instructions; and

a registry configuration service provider configured to receive any of the installation instructions that represent configuration setting operations from the configuration manager, and configured to execute the received installation instructions.